

```
>I too am looking for information/help to put a 440 MHz
>linear to be able to operate SSB with. Send info to:
>
>         dgordon@nrao.edu
>
>Thanks - David - KB4LCI
```

If it is truly a LINEAR amp, it will work fine on SSB.
If it was for 440 FM it is probably not linear.

Kevin

Legal stuff:

The above opinions are my own and not necessarily those of the staff,
faculty, administration, or lab animals (woof!) of The University of
Texas Health Science Center at San Antonio or anyone else who is not
me.

Kevin R. Muenzler, WB5RUE
muenzlerk@uthscsa.edu

The University of Texas Health
Science Center at San Antonio,
Department of Computing Resources

** There is no such thing as a Monkey-Proof Program! **
** I can prove it! **

Date: 26 Jul 1994 08:20:57 -0400
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!gatech!gt-news!prism!prism!not-
for-mail@network.ucsd.edu
Subject: 144MHz X-mitter
To: ham-homebrew@ucsd.edu

I need plans to build a tiny two meter transmitter that will operate in
beacon operation on less than a watt. A ham friend and I plan to launch
this transmitter in model rockets in order to do some experimenting with
ham radio. I know that controllers for models that operate less than a
watt don't require identification to be given. Would this apply in this
situation? Please send me any ideas or references as to how I could build
this device and if and how I will need to use it to transmit identification.

Thank You,
Joel Odom

--
Joel V. Odom KB5GWK + pi~3.14159265358979323846264338327950
24879 Georgia Tech +++++ 28841971693993751058209749445923
Atlanta, GA 30332 + physics 07816406286208998628034825342117
gt4879a@prism.gatech.edu + major 067982148086513282306647....

Date: Tue, 26 Jul 1994 18:29:31 GMT
From: dog.ee.lbl.gov!agate!usenet.ins.cwru.edu!howland.reston.ans.net!
europa.eng.gtefsd.com!news.umbc.edu!eff!news.kei.com!yeshua.marcam.com!
charnel.ecst.csuchico.edu!csusac!@ihnp4.ucsd.edu
Subject: Cold-switch relay voltage ratings
To: ham-homebrew@ucsd.edu

The voltage and current ratings of relays are normally given with the assumption that the relay will be called upon to switch a circuit at that voltage while the rated current is flowing. Obviously, if a relay is switched "cold" it can handle higher voltages and currents.

Can someone give me an idea of how to calculate the maximum voltage rating of a relay that is cold-switched? It should be a function of the contact separation distance, assuming that the rest of the insulation on the relay is adequate to handle the voltage. I'm looking for a way to electronically bandswitch a high-power amplifier, and I'd rather not spend lots of money on vacuum relays if I can avoid it. Are mercury-displacement relays good for this kind of service? (How do you calculate the inductance of a pool of mercury, anyway?!)

Another related question: Does anyone have ideas for a safety interlock that would discharge the HV power supply capacitor faster than the bleeder alone (without causing an explosion!)? The time constant for a 35 uF capacitor and a 200K bleeder resistor is such that lethal voltages remain in the HV circuit for about 30 seconds after power is removed. I'd like to shorten this to a second or two if possible.

Thanks,
-- Bruce Toback
KN6MN

Date: 26 Jul 1994 17:54:07 -0400
From: newstf01.cr1.aol.com!search01.news.aol.com!not-for-mail@uunet.uu.net
Subject: Electronic Chemical Blues
To: ham-homebrew@ucsd.edu

In article <Ct0Gv8.2vF@freenet.buffalo.edu>, aa450@freenet.buffalo.edu (Kurt Rieder) writes:

a bunch.....

Gee, thanks Kurt. Are you a chemist too? Enough people don't know about solvents etc. that it is always nice to point out the sometimes all-too-obvious: anything is dangerous if handled wrong. Thanks again

Entropy ain't what it used to be.....

jim n0oct

Date: 26 Jul 1994 11:52:59 GMT
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!agate!howland.reston.ans.net!cs.utexas.edu!
convex!cnn.exu.ericsson.se!erineews.ericsson.se!eua.ericsson.se!erix.ericsson.se!
joe@network.ucsd.edu
Subject: How do you make an (old fashioned, real) radio?
To: ham-homebrew@ucsd.edu

The other day I bought a "make you own radio set" for my 7 year old son.

This was a germanium crystal 'wind your own coil' type thing - unfortunately I couldn't get it to work. Much dissapointment - I promised to 'ask the net!'

Soon after this I saw in an exhibition some 'home made' receivers built by prisoners of war in a world war 2 prisoner of war camp - these were made from old wine bottles, tin cans scraps of wire etc.

Now my question. How can I make a very simple radio (which works) from every day materials - are there any books papers etc. with tips on how to get these things going?

Can I improve on any of the 'trickey' parts the original designs with modern components?

Joe

Date: 26 Jul 94 21:46:03 GMT
From: news-mail-gateway@ucsd.edu
Subject: Reply to thread about building a house
To: ham-homebrew@ucsd.edu

In regards to prewiring a house:

You gentlemen have missed one thing in deciding what wire to run. A 20 amp circuit is only rated to supply 15 amps in continuous duty. Just a little tidbit from the National Electrical Code (NEC (also a big Japanese company)). If you REALLY want 20 Amps you should run #10 wire. If the run is especially long, you will want slightly larger

wire to lessen the voltage sag, but you probably aren't running that much wire.

Another thing to remember from the NEC is that YOU MUST NOT run RF cables, ethernet, phone, etc. in the same conduit as the electrical power!

You should also check local codes against the suggestions for grounding where it applies to the power entry. The power company only has jurisdiction with the power part of the grounding though!.

I second all the suggestions about adding PLENTY of circuits and other wiring. The suggestions about conduit out to the tower location are also very good.

I HAVE seen clear heat shrink with markers but I don't remember where. I suggest trying Grainger or other electrical supply places. This is not a new problem, so there are probably ready made solutions out there.

While you are adding lots of extra money to this house, you might also consider having fire sprinklers installed. Check with your insurance company to see if they give a substantial discount for having the house "fire-proofed". It may or may not be cost effective. I have friends whose houses have burnt down or been heavily damaged. Their experiences in the aftermath were very unpleasant. Just something to consider.

While on the fire subject, don't forget to put smoke detectors EVERYWHERE. If you have small children, put one INSIDE each child's room. If (heaven forbid) they should decide to play with fire, they will most certainly close the door to do it. Having a smoke alarm inside the room gives you that much more warning (and peace of mind).

Ray
WD5IFS
mack@mails.imed.com

Date: 26 Jul 1994 21:33:28 GMT
From: europa.eng.gtefsd.com!news.msfc.nasa.gov!usenet@uunet.uu.net
Subject: Reply to thread about building a house
To: ham-homebrew@ucsd.edu

In article <9406267752.AA775262763@mails.imed.com>, mack@mails.imed.COM (Mack Ray) says:

>

> In regards to rewiring a house:

>

> You gentlemen have missed one thing in deciding what wire to run. A
> 20 amp circuit is only rated to supply 15 amps in continuous duty.
> Just a little tidbit from the National Electrical Code (NEC (also a
> big Japanese company)). If you REALLY want 20 Amps you should run #10
> wire. If the run is especially long, you will want slightly larger
> wire to lessen the voltage sag, but you probably aren't running that
> much wire.

Yup. Need the 12ga wire to reduce voltage drop, and an isolated ground to reduce noise. Circuit is dedicated to one PC type computer only, about 10 amp draw absolute max. I have found the "negative resistance" characteristics and pulse noise from PC power supplies needs a dedicated circuit for reliability. The 12ga wire helps avoid voltage drops, and the dedicated circuit eliminates noise from other equipment. The "negative resistance" thing refers to the switching power supply tendency to draw a lot more current as voltage drops in a brownout. Heavy wire helps reduce voltage drop, and thus excessive current draw. The UPS handles the rest of the problem <grin>!

>

> Another thing to remember from the NEC is that YOU MUST NOT run RF
> cables, ethernet, phone, etc. in the same conduit as the electrical
> power!

Good point, both from legality and noise problems. Nothing is in conduit in the house---

>

> You should also check local codes against the suggestions for
> grounding where it applies to the power entry. The power company only
> has jurisdiction with the power part of the grounding though!.

Interesting enough, the grounding here has to be a driven ground rod in moist soil. None of that silliness of using a single piece of re-bar in the house slab!

*** Agreements deleted***>

> While you are adding lots of extra money to this house, you might also
> consider having fire sprinklers installed. Check with your insurance
> company to see if they give a substantial discount for having the

deletedia

<sigh> The local code has no provisions for private household fire sprinklers. Stupid, but no can do here.

> While on the fire subject, don't forget to put smoke detectors
> EVERYWHERE. If you have small children, put one INSIDE each child's
> room. If (heaven forbid) they should decide to play with fire, they
> will most certainly close the door to do it. Having a smoke alarm
> inside the room gives you that much more warning (and peace of mind).
>

Even better, I have two independent circuits. One is the usual AC powered one, with the smoke detectors inter-connected, and placed where every bedroom can hear one/be covered. The other is a separate, battery-backed up UL listed alarm system with a set of smoke detectors on a special loop. Most electrical fires will take out the AC powered ones first. The alarm panel will wake us if the power does go off anyway

Should see the MASS of wire in the wiring closet--

--Rich, KE4GNK, Huntsville, Alabama..

Date: 26 Jul 1994 10:02:36 -0400
From: news1.digex.net!access1!andyb@uunet.uu.net
Subject: Telemetry frequencies
To: ham-homebrew@ucsd.edu

While waiting for my ticket to arrive, I've been designing a simple telemetry system to go onboard an R/C helicopter. My question is this - how do I handle the trade off of lower frequency equipment being easier to build at home vs. the benefit of having a full size antenna system on the helicopter. I started off thinking 50 MHz would be easy to work with until I got around to thinking about the antenna.

Any advice is welcome.../Andy

Date: Tue, 26 Jul 1994 14:14:41 GMT
From: EU.net!sun4nl!rivm!charlos@uunet.uu.net
Subject: What is this HP Thinkjet IC ?
To: ham-homebrew@ucsd.edu

hello all,

I have built the loop antenna described in QST of May 94,
(works fine btw, tunes from 14-24 Mhz)
and want to add a stepper motor drive to tune the antenna.
I have found an old HP Thinkjet printer that has just the
stepper motor I need: it has a step size of 7.5 degrees

The stepper motor (used in the printer for paper-feed) is apparently controlled by an IC marked: 1858-0097-8610 . My question is: what is this IC ? . Is it a HP part number ? . Can anyone tell me what it is and what I can use to replace it with ?

Charlos Potma (charlos@rivm.nl)
RIVM - National Institute of Public Health and Environmental Protection
Laboratory for Air Research
Postbox 1, 3720 BA BILTHOVEN, the Netherlands
tel. ++31 30 743831, fax. ++31 30 287531

In article <CtJwwI.Muv@rivm.nl>, charlos@rivm.nl (Charlos Potma) writes...

It is an HP number, but may cross-reference to something more common. The only useful thing I can guess from that number is that it's a transistor array or darlington driver, or something like that. The 1858 numbers all seem to be, anyway.

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>
>thanks and 73,
>PA3CKR,
```

Bristol University takes no responsibility for the views expressed in this

europa.eng.gtefsd.com!newsxfer.itd.umich.edu!ncar!csn!yuma!galen@network.ucsd.edu
To: ham-homebrew@ucsd.edu

References <30psmq\$cuj@enterprise.america.com>,
<1994Jul23.041302.567@ke4zv.atl.ga.us>, <1994Jul25.121919.23029@arrl.org>sd
Subject : Re: VHF/UHF Coax switches (Whaddabout Diodes?)

In article <1994Jul25.121919.23029@arrl.org> zlau@arrl.org (Zack Lau (KH6CP))
writes:

>Gary Coffman KE4ZV (gary@ke4zv.atl.ga.us) wrote:
>: In article <30psmq\$cuj@enterprise.america.com> beau@enterprise.america.com (J.
E. Winburn) writes:
>: > I am looking for a standard relay that can be used at VHF frequencies.
>: What you do is what the manufacturers do, you put the relay on a
>: network analyzer, measure it's reactances, and absorb them into your
>: circuit design. Most open frame relays can be made to work.
>It is my experience that many manufacturers get by without exotic
>equipment like network analyzers (those who sell to the competitive
>amateur market).

What about using diodes? How big should a diode be to switch (hold back)
100W on 2m? (How do you keep 100W of RF out of your GaAs FET Preamp?).
Just wondering,
Galen, KF0YJ

Date: Tue, 26 Jul 1994 14:18:19 GMT
From: ihnp4.ucsd.edu!usc!elroy.jpl.nasa.gov!lll-winken.llnl.gov!fnnews.fnal.gov!
gw1!nntpa!not-for-mail@network.ucsd.edu
To: ham-homebrew@ucsd.edu

References <30kdq3\$m4l@search01.news.aol.com>, <CtIorM.L0z@ncifcrf.gov>,
<YEE.94Jul25185334@mipgsun.mipg.upenn.edu>ot-for-m
Subject : Re: Does anyone have info on QEX?

In article <YEE.94Jul25185334@mipgsun.mipg.upenn.edu>,
Conway Yee <yee@mipg.upenn.edu> wrote:

>>It's a short (24p about) publication by the ARRL, designed for
>>experimenters. It's the technical stuff that should be in QST
>>as far as I'm concerned, but the League has decided to cull out
>>those parts and publish them separately. It comes out every month.
>
>If it is truly only 24 pgs, there is barely an excuse NOT to have it
>in QST. A typical QST is circa 240 pgs long. What is an extra 24
>pgs? The existence of QEX can't be explained by the vast amount of
>material that won't fit into QST. The only possible excuse would be
>to get an additional subscription fee. If anything, the ARRL should

>be encouraging experimentation, not discouraging it. Well, c'est la
>vie.

Seems to me that they started it a little while after they started
selling lifetime subscriptions to QST. Always thought is was just a
scheme to for "revenue enhancement" to sell lifetime QST subscriptions
and then move the (advanced, technical) content of QST to QEX and keep
the _beginners'_ material in QST. Slick.

--

Ed Schaefer

ham radio: K9JMA

aviation: N97178

End of Ham-Homebrew Digest V94 #211
